PENDING CLAIMS AS AMENDED

Please amend the claims as follows:

1. (Original) A method for generating a temporary identifier in a service area of a wireless communication system, said method comprising steps of:

    initializing an assignment table;

    maintaining a counter value;

    hashing said counter value to obtain an assignment table index;

    searching said assignment table for an available entry;

    encrypting said counter value to obtain said temporary identifier.

2. (Original) The method of claim 1 wherein said service area supports a predetermined number of users.

3. (Original) The method of claim 1 wherein said counter value corresponds to a counter of a first predetermined number of bits.

4. (Original) The method of claim 3 wherein said encrypting step uses an encryption cipher of a length equal to said first predetermined number of bits.

5. (Canceled)

6. (Original) The method of claim 1 further comprising a step of storing a subscriber identifier in said available entry.

7. (Original) The method of claim 1 further comprising a step of storing said counter value in said available entry.

8. (Original) The method of claim 1 wherein said temporary identifier is a temporary mobile station identifier.

9. (Original) The method of claim 6 wherein said subscriber identifier is an international mobile subscriber identifier.

10. (Original) The method of claim 1 wherein said searching step begins at said assignment table index.

11. (Original) A method for generating a temporary identifier in a service area of a wireless communication system, said method comprising steps of:

initializing an assignment table;

maintaining a counter value;

hashing said counter value to obtain an assignment table index;

searching said assignment table for an available entry;

encrypting said counter value and said assignment table index to obtain said temporary identifier.

12. (Original) The method of claim 11 wherein said service area supports a predetermined number of users.

13. (Original) The method of claim 11 wherein said counter value corresponds to a counter of a first predetermined number of bits.

14. (Original) The method of claim 13 wherein said encrypting step uses an encryption cipher of a length equal to said first predetermined number of bits.

15. (Canceled)

16. (Original) The method of claim 11 further comprising a step of storing a subscriber identifier in said available entry.

17. (Original) The method of claim 11 further comprising a step of storing said counter value in said available entry.

18. (Original) The method of claim 11 wherein said temporary identifier is a temporary mobile station identifier.

19. (Original) The method of claim 16 wherein said subscriber identifier is an international mobile subscriber identifier.

20. (Original) The method of claim 11 wherein said searching step begins at said assignment table index.

21. (Original) A wireless communication system comprising:
means for mobile switching;
means for registering a visitor location;
means for storing and assigning a plurality of subscriber identifiers;
means for maintaining a counter value;
means for encrypting and generating a temporary identifier.

22. (Original) The wireless communication system of claim 21 wherein said means for storing and assigning a plurality of subscriber identifiers further comprises means for storing a plurality of counter values.

23. (Original) The wireless communication system of claim 21 wherein said means for storing and assigning a plurality of subscriber identifiers comprises an international mobile station identifier.

24. (Original) The wireless communication system of claim 21 wherein said temporary identifier is a temporary mobile station identifier.

25. (Original) The wireless communication system of claim 21 wherein said means for encrypting and generating a temporary identifier encrypts said counter value.

26. (Original) The wireless communication system of claim 21 further comprising means for performing a hash function.

27. (Original) The wireless communication system of claim 26 wherein said means for performing a hash function is configured to hash said counter value to produce an assignment table index.

28. (Original) The wireless communication system of claim 27 wherein said means for encrypting encrypts said assignment table index.

29. (Original) A method for generating a temporary identifier in a service area of a wireless communication system, said method comprising steps of:
initializing an assignment table;
maintaining a counter value;
hashing said counter value to obtain an assignment table index;
searching said assignment table for an available entry;
encrypting said counter value and said assignment table index to obtain said temporary identifier;
storing a subscriber identifier and said counter value in said available entry.

30. (Original) The method of claim 29 wherein said service area supports a predetermined number of users.

31 (Original) The method of claim 29 wherein said counter value corresponds to a counter of a first predetermined number of bits.

32. (Original) The method of claim 31 wherein said encrypting step uses an encryption cipher of a length equal to said first predetermined number of bits.

33. (Canceled)

34. (Original) The method of claim 29 wherein said temporary identifier is a temporary mobile station identifier.

35. (Original) The method of claim 29 wherein said subscriber identifier is an international mobile subscriber identifier.

36. (Original) The method of claim 29 wherein said searching step begins at said assignment table index.

37. (Original) A computer readable medium including a computer program, said computer program implementing a method for generating a temporary identifier in a service area of a wireless communication system, said computer program comprising:

a first code segment for initializing an assignment table;

a second code segment for maintaining a counter value;

a third code segment for obtaining an assignment table index;

a fourth code segment for searching said assignment table for an available entry;

a fifth code segment for encrypting said counter value to obtain said temporary identifier.

38. (Original) The computer readable medium of claim 37 wherein said fifth code segment comprises an encryption cipher corresponding to said counter value.

39. (Original) The computer readable medium of claim 37 wherein said third code segment comprises a hash function for hashing said counter value to obtain said assignment table index.

40. (Previously Presented) An apparatus for generating a temporary identifier in a service area of a wireless communication system, the apparatus comprising:

a visitor location register configured to:

initialize an assignment table;

maintain a counter value;

hash said counter value to obtain an assignment table index;

search said assignment table for an available entry;

encrypt said counter value to obtain said temporary identifier.

41. (Previously Presented) The apparatus of claim 40, wherein said service area supports a predetermined number of users.

42. (Previously Presented) The apparatus of claim 40 wherein said counter value corresponds to a counter of a first predetermined number of bits.

43. (Previously Presented) The apparatus of claim 42 wherein the visitor location register is further configured to encrypt said counter value using an encryption cipher of a length equal to said first predetermined number of bits.

44. (Previously Presented) The apparatus of claim 40 wherein the visitor location register is further configured to store a subscriber identifier in said available entry.

45. (Previously Presented) The apparatus of claim 40 wherein the visitor location register is further configured to store said counter value in said available entry.

46. (Previously Presented) The apparatus of claim 40 wherein said temporary identifier is a temporary mobile station identifier.

47. (Previously Presented) The apparatus of claim 44 wherein said subscriber identifier is an international mobile subscriber identifier.

48. (Previously Presented) The apparatus of claim 40 wherein the visitor location register is further configured to search beginning at said assignment table index.